

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 33

UNITED STATES PATENT AND TRADEMARK OFFICE

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JAN 31 2003

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte JERALD C. HINSHAW, DANIEL W. DOLL,
REED J. BLAU and GARY K. LUND

Appeal No. 2002-0304
Application No. 09/025,345

ON BRIEF

Before KIMLIN, GARRIS and WALTZ, Administrative Patent Judges.
KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1, 83-91 and 114-117. Claims 40, 78, 81, 82 and 92-113, the other claims remaining in the present application, stand withdrawn from consideration. Claim 1 is illustrative:

1. A solid gas generating composition formulated for generating gas suitable for use in deploying an air bag or balloon from a supplemental restraint system, said solid gas generating composition comprising:

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a complex of a metal cation and a neutral ligand containing hydrogen and nitrogen, such that when the complex combusts, a mixture of gases suitable for use in deploying an air bag or balloon from the supplemental restraint system is produced; and

sufficient oxidizing anion to balance the charge of the metal cation.

The examiner relies upon the following references as evidence of obviousness:

Rausch	3,138,498	June 23, 1964
Cook et al. (Cook)	2,220,891	Nov. 12, 1940
Christmann et al. (Christmann)	3,921,497	Nov. 25, 1975
Hommel et al. (Hommel)	4,925,600	May 15, 1990

Appellants' claimed invention is directed to a solid gas generating composition which combusts to produce a mixture of gases suitable for use in deploying an air bag in, for example, an automobile. The composition comprises a complex of a metal cation and a neutral ligand, e.g., a metal nitrate ammine, and an oxidizing anion, a nitrate or peroxide. The complex, upon combustion, generates a mixture of gases containing nitrogen and water vapor. According to appellants, "the production of other undesirable gases or particulates may be substantially reduced or eliminated" (page 7 of principal brief, first paragraph). The species of the complex elected by appellants is cobalt nitrate ammine.

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Appealed claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by each of Cook, Rausch and Hommel. Claims 1, 85-91, 114, 115 and 117 stand rejected under 35 U.S.C. § 103 as being unpatentable over Cook and Hommel in view of Christmann. The examiner has withdrawn the rejection of claims 83, 84 and 116 (see page 2 of Answer, second paragraph).

Upon careful consideration of the opposing arguments presented on appeal, we will not sustain the examiner's 35 U.S.C. § 102 and § 103 rejections based on Cook and Hommel. We will, however, affirm the examiner's 35 U.S.C. § 102 rejection of claim 1 over Rausch. Our reasoning follows.

Claim 1 on appeal defines a complex of a metal cation and a neutral ligand which, upon combustion, generates "a mixture of gases suitable for use in deploying an air bag or balloon from the supplemental restraint system." We agree with appellants that this recitation is more than a statement of intended use but, rather, a specified property of the claimed complex. Therefore, the initial burden is upon the examiner to establish that the compositions of Cook, Hommel and Rausch have the claimed property.

Regarding Cook and Hommel, appellants present the argument that "[t]he high concentrations of ammonium nitrate called for by

Cook and Hommel, coupled with the low concentrations of metal complexes, are unsuitable for the type of environment encountered by a supplemental restraint system" (page 10 of principal brief, second paragraph). As noted by appellants, the preponderant ingredient, i.e., greater than 50%, in the Cook composition is ammonium nitrate, whereas the maximum amount of metal complex is 10%. Likewise, the solid propellant or explosive compositions of Hommel comprise ammonium nitrate and a metal complex of between 1 and 5%. On the other hand, from the examples in appellants' specification, it is clear that the solid gas generating composition suitable for use in an air bag contains a major amount of the metal complex and minor amounts, if any, of ammonium nitrate. Therefore, based on this discrepancy in formulations between appellants' disclosed compositions and the compositions disclosed by Cook and Hommel, as well as the failure of Cook and Hommel to teach that the compositions are suitable for deployment in an air bag, we find that the burden is properly upon the examiner to offer a rationale why it is reasonable to conclude that the compositions fairly taught by Cook and Hommel would have been considered suitable for use in air bags by one of ordinary skill in the art. This, however, the examiner has not done.

The examiner submits that the claim 1 recitation "comprising" allows for additional ingredients in any types and amounts, and that claim 1 does not recite amounts for any ingredient, i.e., "there is no minimum amount of the complex oxidizer required in claim 1" (page 5 of Answer, first paragraph). While this is true, however, claim 1 does require that the composition has the property that, upon combustion, it is suitable for use in deploying an air bag or balloon. As explained above, the examiner has not established that the compositions of Cook and Hommel possess such a property.

Since Christmann does not remedy the deficiency of Cook and Hommel discussed above, it follows that we will not sustain the examiner's rejection of claims 1, 85-91, 114, 115 and 117 under 35 U.S.C. § 103.

The examiner's rejection of claim 1 under 35 U.S.C. § 102 over Rausch is another matter. Appellants do not dispute the examiner's factual determination that Rausch discloses a composition comprising a complex of a metal cation and a neutral ligand containing hydrogen and nitrogen, as presently claimed. Indeed, Rausch discloses a composition comprising a major amount of a metal perchlorate-hydrazine compound, and appellants' specification discloses that "[c]omplexes which fall within the

scope of the present invention include . . . metal perchlorate hydrazines" (page 10, last paragraph). Also, unlike Cook and Hommel, Rausch discloses a composition comprising 90 wt.% of the metal perchlorate-hydrazine complex and only 10 wt.% aluminum. Since Example 12 of the present specification discloses a composition comprising 10 wt.% aluminum nitrate, we find it reasonable to conclude that the burden is properly upon appellants to demonstrate the composition of Rausch is not suitable for use in deploying an air bag or balloon.¹ As noted by the examiner, however, no such objective evidence is of record. While appellants contend that the composition of Rausch is the type of conventional thermite composition that is disclosed in U.S. Patent No. 5,439,537 to be unsuitable for use in air bags, appellants have not established that the specific composition of Rausch does not have the claimed property. Appellants point to no reference in U.S. No. 5,439,537 to Rausch, and we fail to find any.

¹ It is well settled that when a claimed product reasonably appears to be substantially the same as the product disclosed by the prior art, the burden is on the applicant to prove that the prior art product does not necessarily or inherently possess characteristics attributed to the claimed product. See In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990); In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977).

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In conclusion, based on the foregoing, the examiner's decision rejecting the appealed claims is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART


EDWARD C. KIMLIN
Administrative Patent Judge


BRADLEY R. GARRIS
Administrative Patent Judge

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THOMAS A. WALTZ
Administrative Patent Judge

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